RESEARCH ARTICLE

The effectiveness of teaching and learning strategies used by teachers in Sulu State College

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*ABSTRACT***.** In order to ascertain the efficacy of the instructional and educational methods that are utilized by instructors at Sulu State College, the study employed a purposive sampling method to select a sample of 100 teachers from various departments of the institution. This study provides valuable insights into the effectiveness of teaching and learning strategies employed by instructors at Sulu State College. The findings highlight the importance of implementing effective strategies to promote student success in higher education and the possibility of improving teaching practices and increasing student involvement, which will ultimately contribute to enhanced learning outcomes at Sulu State College and broader educational institutions.

KEYWORDS: Effectiveness Of Teaching And Learning, Teaching And Learning Strategies

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Introduction

Teachers in education can utilize a range of teaching strategies, each with pros and cons. Inquiry-based learning and hands-on learning methodologies are two of the most prominent examples. According to Havhannsyan, E. (2023), inquiry-based learning encourages students to ask questions, research challenges, and reach their own conclusions based on evidence. Students that participate in this process improve their critical thinking skills as well as their capacity to communicate their thoughts and discoveries to others. Hands-on learning tactics include allowing children to learn by doing. By allowing students to practice technical skills, they can get the hands-on experience and confidence required to understand the subject (Havhannsyan, E., 2023). Giving pupils assignments is one example of these tactics. Students must speak with their classmates about their assignments, share ideas, ask questions, and use technology such as Google to search for information in order to complete their homework.

Integrating educational activities with technology can help teachers strengthen their technical skills. By having strong technical abilities, Sulu State College teachers can improve their professional achievement and remain competitive in the workplace. According to E. Havhannsyan (2023), technical skills are crucial in today's society and cover a wide spectrum of competencies. It necessitates a hands-on and practical approach that employs a variety of instructional techniques. Using this method, teachers can assist students in developing the abilities required to succeed in today's technologically driven environment.

The most effective tactics will be determined by the individual learning objectives, student needs, and teaching background of the teachers. According to Figley et al. (2012), the teacher is the most important figure in school. The success of the school and its students in terms of educational advancement is based on the teacher's active awareness and leadership in carrying out its plans. The instructor is then expected to initiate ways and procedures that produce a meaningful and enjoyable environment in which the educational process can be successfully completed. He should help set the school's goals and allocate the resources required to achieve the desired teaching-learning scenario.

Another obligation of the teacher, according to Ramos, A. (2015), is to improve relevant education and learning. He should observe what happens in the classroom in order to determine how pupils learn most successfully. To help students enhance their performance, he must support them in developing plans for the selection of methods, resources, and evaluation procedures. Furthermore, he must be able to interact effectively with kids in order to establish positive learning objectives.

Teachers at Sulu State College should be more adaptable in their approach, willing to experiment with new approaches and adjust their teaching practices to match the requirements of their pupils. As a result, the researcher was motivated to undertake this study within this environment.

Research Questions

1. What is the demographic profile of the teacher-respondents in terms of;
    1.1. Gender;
    1.2. Age;
    1.3. Status of Appointment;
    1.4. Highest educational attainment; and
    1.5. Years of teaching experience?
2. What is the level of the teaching and learning strategies used by teachers in Sulu State College in terms of:
    2.1. Students learning strategies; and
    2.2. Technology experience?
3. Is there a significant difference on the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of:
    3.1. Gender;
    3.2. Age;
    3.3. Status of Appointment;
    3.4. Highest educational attainment; and
    3.5. Years of teaching experience?
4. Is there a significant correlation among subcategories subsumed under teaching and learning strategies of teachers in Sulu State College?

Literature

The researcher has reviewed many previous studies and literature on the effectiveness of teaching and learning tactics used by instructors; the following is a summary of those studies.

Foreign Literature and Studies

According to Zulueta, F. M. (2015), the choice of specific teaching strategies is determined by the following factors: the educational objective and lesson goal, the nature of the subject matter or lesson, the nature of the learners, school equipment and facilities, and the teacher. While they propose certain considerations, it is still necessary for a teacher to think carefully and be flexible in order to adapt different tactics to the learner's needs.

Teachers must determine which strategy is most appropriate for their students' growth. It makes little difference whether instructional style they use. Whether new or old, as long as the chosen teaching method aims to improve educational quality and engage students in the educational process, it is unquestionably the best way (DeLong, 2019). The basic goal of teaching at any level of school is to effect fundamental change in the learner (Tebabal and Kahssay, 2016). Teachers should use appropriate teaching strategies that are tailored to specific objectives and competencies in order to secure and enhance the transmission of knowledge.

Teaching strategy refers to the principles and strategies employed for instruction. Active class involvement, recitation, demonstration, memorization, and other teaching tactics are often utilized, depending on the teacher's approach (Borich, G. D., 2016). Teaching tactics can be chosen based primarily on the content or skill being taught. It could also be influenced by the pupils' aptitude and enthusiasm. Consistent teaching and learning are the two primary components of education. The most widely accepted criterion for judging good quality teaching is the quantity of student learning and interest in the subject (Brekelmans, M. et al. (2018).

According to Garcia (2016), in the past, teachers would exclusively use verbal communication to teach. However, since the educational system has evolved throughout time, the employment of various tools and resources has become necessary to improve communication and learning. He mentioned tools and resources to aid instruction, which are as follows: Audio-visual aids include chalkboards, visual display materials, projected and recorded instructional aids, instructional television, printed materials, computers and computer programs, the community as a resource, field trips, the internet, local libraries, museums, and historical sites.

The increased use of technology, such as significant internet use over time, has begun to change teachers' approaches and roles in the classroom (Livingstone, S. & Bober, M., 2015). Newer teaching methods may include television, radio, computers, and other modern devices. Some educators argue that, while technology can help with learning, it cannot replace educational techniques that promote critical thinking and a desire to learn (Walker, S.E., 2018).

According to Mahmood, S. (2021), teaching-learning techniques help to integrate an online and modular distant education to the new learning process by examining numerous instructional tactics and approaches. Furthermore, it contributes to the successful creation of new regular classes by inspiring teachers to develop new modes of interaction and developing tactics that enhance student learning. As a result, it works with remote learning, assessment policies, and school implementation, provides feedback, and allows for customizable instruction. The learning authority is an effective instrument for creating opportunities that encourage flexible learning, context, and execution.

AI chat models hold substantial utilitarian value for learners particularly in tasks that require innovation and creativity (Duhaylungsod, Arvin & Chavez, Jason. 2023). Digital competence (Chavez, J.V. 2020). Skill development in distance learning which calls teachers to integrate it into skill assessment strategies (Chavez, J., & Lamorinas, D. D. 2023). Humanized teaching is maintained in the face of a flexible learning environment (Chavez, J.V. 2023). Adaptive strategies using diversifying and analyzing trends, using digital technology resources, data-driven, acquiring new alternative skills (Chavez JV, Del Prado R, Estoque M 2023).

Methodology

This chapter addressed the methodologies and processes used to conduct the study. It comprises the research strategy, locale, study participants, sample size, research instruments, data collection technique, and data treatment and analysis

1. *Research design*

The descriptive survey was the research design employed in this investigation. This is because the activity entails gathering data to address research questions about the teaching and learning practices employed by Sulu State College teachers.

According to Orodho (2005), a survey is a way of gathering information by interviewing or presenting a questionnaire to a group of people. This study used a descriptive survey research approach. This approach is judged appropriate for this study since it can elicit a wide range of baseline data. It also ensures that data is collected quickly and efficiently. Descriptive research can frequently lead to the development of fundamental knowledge concepts and the resolution of critical challenges.

2. *Research Locale*

This study was conducted at one (1) designated school in Sulu Province, the Sulu State College. This chosen school is located near Capitol Site in Jolo, Sulu. The Sulu Capitol is one of the attractions for tourists and visitors to this region. This school was chosen because the population there is capable of completing this study.

3. *Respondents of the Study*

The respondents for this study were 100 selected instructors from Sulu State College's schools of computer science and engineering (CSE), arts and sciences, nursing, business administration and management, biology, education, senior high, and agriculture. In this study, the researcher drew 30 teachers to participate, 43 of whom were male and 57 were female. To determine this, Table 1 below is a sample illustration:

Table 1
Distribution of the Total Teachers' Respondents

Department	Teachers' Respondents	
	Male	Female
1. School of Computer Science and Engineering	17	15
2. School of Arts and Sciences	4	5
3. School of Nursing	0	6
4. School of Business Administration and Management	9	4
5. School of Senior High	4	8
6. School of Education	5	9
7. Biology Department	2	4
8. School of Agriculture	2	6

from	Total	43	57

different Departments

4. Sampling Design

The researcher used the standard random sampling technique. A simple random sampling methodology is utilized to pick 100 teachers from 241 at Sulu State College, Capitol Site, Jolo, Sulu, using the lottery method.

5. Research Instrument

The basic instrument used in this study was a check-list questionnaire adapted from Philip C. Abrami et al. (2020). The questionnaire is intended to collect information from teachers in all departments at Sulu State College. The justification for adopting questionnaires is that they are a rapid way to collect data. Furthermore, it is recognized to be extremely valid and dependable when properly constructed (Sarantakos, 2005). The question is divided into three portions. Section I provides a profile of the respondents, while Section II discusses the students' learning strategies. The quantitative data from the survey will be collected using a 4-point Likert scale with the following equivalents: 4-Always (A), 3-Sometimes (S), 2-Often (O), and 1-Never (N). Section III assesses technology experience using a 5-point Likert scale: 5− Strongly Agree (SA), 4-Agree (A), 3-Undecided (U), 2-Disagree (DA), and 1-Strongly Disagree (SD).

6. Validity and Reliability

Validity and reliability are critical factors in establishing the quality of an instrument created for research or study. Validity relates to the suitability of the evaluation instrument for a specific set of people, not to the instrument itself. In other words, validity refers to how well a research instrument measures what it is designed to do. Reliability, on the other hand, is the consistency with which a test measures whatever it measures from one measurement to the next, repeatedly and across time. Since the instrument's adoption, the questionnaire's questions have been tested for validity and reliability. However, at least two specialists from the School of Graduate Studies reviewed the instrument to ensure that it was appropriate for the local situation.

7. Data Gathering Procedure

During the process of gathering descriptive data, a letter approved by the Dean of Graduate Studies at Sulu State College, Capitol Site, Jolo, Sulu, was requested. The researcher will next get written authorization from Sulu State College's Dean of Graduate Studies before administering the questionnaires to the selected respondents. Once authorization was obtained by the Dean, the researcher scheduled a meeting with the Deans of each department. During the meeting, the researcher presented the study's nature, goal, and importance. After receiving consent from the Dean, the researcher approached the teacher-respondents. Afterward, the researcher will launch the questionnaire. The instructions were read and clarified to the teacher-respondents in order to avoid any problems or questions that might arise during the questionnaire administration. The completed surveys were collected on the same day of administration.

8. Statistical Treatment of Data

The collected data were evaluated with the following statistical tools:

i. The study used frequency and percentages to describe the selected instructors' profile, including gender, age, appointment status, educational achievement, and years of experience.

ii. The weighted mean and standard deviation were used to assess the degree of teaching and learning techniques employed by teachers at Sulu State College based on student learning strategies and technology experiences.

iii. T-test and ANOVA were used to identify significant differences in teaching and learning techniques utilized by Sulu State College teachers compared to students' learning strategies and technological experience when data was pooled by teacher demographics.
iv. Pearson r correlation revealed a substantial link between teachers' level of learning methodologies and technological experience at Sulu State College.
The responses from the data were examined. The acquired data was coded, documented, statistically evaluated, and interpreted.

Results And Discussions

This chapter discusses the presentation, analysis, and interpretation of results based on the data collected for this study. Specifically, it also presents students' demographic profiles in terms of gender, age, status of appointment, educational attainment, and years of service; the effectiveness of teaching and learning strategies used by teachers in Sulu State College; significant differences in to investigate the effectiveness of teaching and learning strategies used by teachers in Sulu State College; and the significant correlation among the sub-categories subsumed under

Based on proper scoring and statistical treatments of data acquired for this study, the following are the presentations, analyses, and interpretations of results that correspond to each of the research questions:

1. What is the demographic profile of the teacher-respondents in terms of;
1.1 Gender;
1.2 Age;
1.3 Status of Appointment;
1.4 Highest educational attainment; and
1.5 Years of teaching experience?

1.1 In terms of Gender

Table 1.1 Demographic profile of the teacher-respondents in terms of gender

Gender	Number of Teachers	Percent
Male	43	43.0%
Female	57	57.0%

Table 1.1 represents the gender-specific demographic profile of the teachers who responded to the survey. According to the data presented in this table, 43 (43.0%) of the 100 educators who completed the survey were male, while 57 (57.0%) were female. Given this information, it appears that more than half of the instructors who took part in this research were male, which is a higher proportion than the number of female teachers who participated. This study suggests that there will be a greater number of female college instructors than male college instructors during the Academic Year 2023-2024.

1.2 In terms of Age

Table 1.2 Demographic profile of teacher-respondents in terms of age

Age	Number of Teachers	Percent
30 years old & below	41	41.0%
31-40 years old	27	27.0%
41 years old & above	32	32.0%
Total	100	100%

Table 1.2 demonstrates the age distribution of the members of the teaching population who responded to the survey. Among the 100 teachers who responded to the survey, this table reveals that 41 (41.0%) of them are under the age of 30, 27 (27.0%) are between the ages of 31 and 40, and 32 (32.0%) are over the age of 41. The results of this study indicate that more than half of the instructors who participated in it are under the age of thirty.

1.3 In terms of Status of Appointment

Table 1.3 Demographic profile of teacher-respondents in terms of status of appointment

Status of Appointment	Number of Teachers	Percent
Permanent	46	46.0%
Temporary	3	3.0%
Contract of Service	51	51.0%
Total	100	100%

Table 1.3 shows the demographic profile of teacher responses based on their appointment status. This table shows that 46 (46.0%) of the 100 teachers who responded are permanent, 3 (3.0%) are temporary, and 51 (51.0%) are contract of service. This suggests that more than half of the teacher-respondents in this survey had contract of service status, implying that there are a significant number of contracts of service due to an unanticipated increase in the number of registrants.

1.4 In terms of Educational Attainment

Table 1.4 Demographic profile of teacher-respondents In terms of educational attainment

Educational Attainment	Number of Teachers	Percent
Bachelor's degree	10	10.0%
Bachelor's degree with Master's units	33	33.0%
Master's degree	25	25.0%
Doctorate degree	16	16.0%
Total	16	16.0%

Table 1.4 demonstrates the demographic profile of the teachers who responded to the survey in terms of their level of education. According to the data presented in this table, out of the total of one hundred teachers who responded to the survey, ten (10%) have a bachelor's degree, thirty-three (33%), having a bachelor's degree with master's units, twenty-five (25%), having a master's degree, sixteen (16%) having a master's degree with doctoral units, and sixteen (16%) having a doctorate. Based on this information, it appears that more than one-third of the educators who took part in this poll hold a master's degree. As a result of this discovery, it may be deduced that the majority of the teaching staff of Sulu State College fulfills the minimum admission requirement for teaching positions in public colleges and universities.

1.5 In terms of Years of Teaching Experience

Table 1.5 Demographic profile of teacher-respondents In terms of years of teaching experience

Years of Teaching Service	Number of Teachers	Percent
5 years & below	53	53.0%
6-10 years	20	20.0%
11-15 years	12	12.0%
16 years & above	15	15.0%
Total	100	100%

Table 1.5 illustrates the demographic profile of the teachers who responded, broken down by the number of years they had been teaching. Among the 100 educators who provided responses, the following table reveals that 53 (53.0%) had five years or less of teaching experience, 20 (20.0%) had six to ten years, 12 (12.0%) had eleven to fifteen years, and 15 (15.0%) had sixteen years or more of teaching experience. According to the findings of this study, more than half of the educators who participated in the survey have been working in the field for a period of five years or less.

2. What is the level of the teaching and learning strategies used by teachers in Sulu State College in terms of: 2.1 students learning strategies; and 2.2 technology experience?

2.1 On Students' Learning Strategies

Table 2.1 Level of the teaching and learning strategies used by teachers in Sulu State College in terms of students' learning strategies

	Statements	Mean	S.D.	Rating
1	They begin by identifying their goals.	3.5800	.62247	Always
2	They make a plan about how they will complete it.	3.5500	.55732	Always
3	They are confident about doing it well before they begin.	3.5300	.55877	Always
4	They think they will do well.	3.6100	.52982	Always
5	They believe it will make them feel great when they're done.	3.6000	.55048	Always
6	They think that if they don't try hard, I will be disappointed.	3.4000	.68165	Often
7	They need to be interested in what they're doing.	3.6400	.54160	Always
8	They want to fully comprehend what they need to do.	3.6200	.52762	Always
9	Their attempt is to show me that they are good students.	3.5600	.57419	Always
10	While they're working, they talk themselves through each step.	3.4500	.65713	Often
11	They try to picture how their work will turn out.	3.4500	.64157	Often
12	They concentrate fully on their task.	3.5400	.61002	Always
13	They divide the job into smaller parts that are easier to do.	3.5400	.62636	Always
14	What's going on is recorded by the group.	3.5300	.61060	Always
15	They change how they do things when they think things aren't going well.	3.5600	.59152	Always

16	When they're done with their work, they think about how they did it.	3.5100	.64346	Always
17	They think that if they have done it well, it is because of their ability.	3.5100	.65897	Always
18	They believe that their lack of success is due to the amount of work they put into it.	3.4100	.69769	Often
19	They believe that if they do well, it's because I explain things well most of the time.	3.5700	.59041	Always
20	They think that if they do it well, it is because they were lucky.	3.2900	.80773	Often
21	They feel unhappy about their performance.	3.2000	.73855	Often
22	They don't give up, even when the task is hard.	3.5100	.57726	Always
23	They believe they will be successful since they do their work well.	3.5800	.51601	Always
24	For some reason, they think they can do it since I modeled it.	3.5200	.64322	Always
25	They soon get excited about the work they have to do.	3.4900	.57726	Often
26	They believe they can succeed since others have told them they are good students.	3.5000	.65905	Always
27	They think that doing the task by themselves is important.	3.5500	.64157	Always
28	Their belief is that getting along with their classmates is significant.	3.5100	.54114	Always
29	To feel good about themselves, they work hard.	3.5500	.57516	Always
30	They don't try too hard because they believe that if they fail, they will feel bad about themselves.	3.3200	.70896	Often
31	Because they're afraid of failing, they don't try very hard.	3.1700	.80472	Often
32	They believe it will be helpful for them to finish it.	3.5500	.57516	Always
33	They think it is important for them to do well.	3.5800	.53522	Always
34	They believe doing it well requires too much work.	3.4700	.55877	Often
35	They think it is something that is difficult to do well.	3.4300	.60728	Often
36	They don't think they've ever done something like this before.	3.2500	.77035	Often
37	To be successful, they will try new things.	3.5400	.55814	Always
	Total Weighted Mean	3.4911	.39434	Often

Legend: (4) 3.50–4.00=Always (A); (3) 2.50–3.49= Often (O); (2) 1.50–2.49=Sometimes (S); (1) 1.00 – 1.49=Never (N)

Table 2.1 shows the number of different teaching and learning strategies that are utilized by instructors at Sulu State College in relation to the various learning strategies that students apply. In this particular domain, the evaluations of the students have a total weighted mean score of 3.4911 and a standard deviation of.39434, which indicates that they are carried out regularly or to a significant degree. This conclusion implies that the teacher-respondents in this study claimed that they employ procedures or activities to engage students in the teaching-learning scenario in order to fulfill the teaching and learning objectives that have been assigned to them.

Among the items that fall under this category, the following items were regarded as frequently or to a high extent by the teachers who responded to the survey: Participants in the study expressed various beliefs and attitudes towards their performance and effort. Some participants believed that they would feel disappointed if they did not put in sufficient effort. Others reported talking themselves through the steps as they worked, indicating a cognitive strategy employed during the task. Additionally, participants mentioned engaging in visualization, imagining what their work would look like once completed. Interestingly, some participants attributed poor performance to the amount of effort exerted, while others attributed success to luck rather than their own abilities. Participants also reported feeling unhappy about their performance initially, but this feeling soon transformed into excitement about the task. It is worth noting that some participants avoided exerting too much effort due to the fear of feeling bad about themselves in the event of failure. Similarly, the fear of failure also led some participants to avoid trying too hard. These findings shed light on the complex interplay between beliefs, emotions, and effort in individuals' approach to tasks.

However, the following items were rated as Always by the teachers who responded to the survey: Participants in the study exhibit a systematic approach to goal attainment. They commence by clearly delineating their objectives. Subsequently, they devise a comprehensive plan outlining the steps necessary for successful completion. Prior to commencing the task, they exhibit a high level of self-assurance, harboring the belief that they will excel. Furthermore, they anticipate a sense of accomplishment and positive emotions upon task completion. Intrinsic motivation plays a crucial role, as they prioritize a genuine interest in the task at hand. Their primary objective is to attain a deep understanding of the task's requirements. Additionally, they strive to demonstrate their competence as diligent students. During task execution, they exhibit unwavering focus and concentration. To facilitate progress, they employ a strategy of breaking down the task into more manageable subtasks. Regular self-assessment is also observed, as they monitor their performance and progress. If faced with challenges or setbacks, they exhibit adaptability by exploring alternative approaches. Upon task completion, they engage in reflective thinking, evaluating their work and attributing successful outcomes to their personal abilities.

2.2 On Technology Experience

Table 2.2 Level of the teaching and learning strategies used by teachers in Sulu State College in terms of technology experience

	Statements	Mean	S.D.	Rating
1	I have no experience with them.	3.3400	1.2650	Undecided
2	I've tried to use them in my classroom, but I still need guidance on a regular basis.	3.6400	1.2269	Agree
3	I feel at ease using them in my classroom.	4.1400	.79162	Agree
4	I am quite skilled at using a wide range of applications in my classroom.	4.1300	.76085	Agree
5	I frequently include them in my instructional activities.	4.0500	.78335	Agree
6	I often use computers in my classroom.	3.7700	1.0333	Agree
7	I frequently use our school laboratory.	3.6200	.96169	Agree
8	I'm comfortable using digital portfolios with my class	3.9700	.90403	Agree
		3.8325	.60334	Agree

Legend: (5) 4.50-5.00=Strongly Agree (SA); (4) 3.50–4.49=Agree (A); (3) 2.50–3.49= Undecided (U); (2) 1.50–2.49=Disagree (D); (1) 1.00 – 1.49=Strongly Disagree (SD)

Table 2.2 demonstrates the level of technical experience that the teaching and learning approaches employed by Sulu State College instructors have. The assessments of the students have a total weighted mean score of 3.8325 and a standard deviation of.60334, which indicates that they agree or have a high extent based on the results of the evaluations. This finding indicates that the teacher-respondents in this study agreed that the teaching strategies they used during the teaching-learning process in the classroom would be supplemented by technology in order to find more and better information about the topic, as well as to assist learners in absorbing and comprehending the relevant information that was embedded in the lessons.

To be more specific, among the items that fall under this category, the following items were rated as "Agree" or "High extent" by the teachers who responded to the survey: "I've tried to use them in my classroom, but I still need guidance on a regular basis," "I feel at ease using them in my classroom," "I am quite skilled at using a wide range of applications in my classroom," "I frequently include them in my instructional activities," "I often use computers in my classroom," "I frequently use our school laboratory."

3. Is there a significant difference in the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of: 3.1 Gender; 3.2 Age; 3.3 Status of Appointment; 3.4 Highest educational attainment; and 3.5 Years of teaching experience?

3.1 By Gender

Table 3.1 Differences in the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of gender

VARIABLES	Grouping	Mean	S. D.	Mean Difference	*t*	Sig.	Description
Students' learning strategies	Male	3.5908	.33667	.17499	2.241	.027	Significant
	Female	3.4158	.42012				
Technology experience	Male	4.0203	.54550	.32956	2.796	.007	Significant
	Female	3.6908	.61060				

*Significant at alpha 0.05

Table 3.1 a comparison is made between the degree of teaching and learning techniques and technology experience utilized by teachers at Sulu State College and the level of learning strategies and technology experience utilized by students while the data is classified according to gender. This table demonstrates that the mean differences between categories that are classified according to the degree of teaching and learning strategies utilized by instructors at Sulu State College are statistically significant at the alpha 0.5% level. It appears from this that male and female teachers who responded to the survey had differing assessments on the quantity of teaching and learning strategies that were deployed by teachers at Sulu State College. Given this finding, it appears that

the fact that he is a male instructor at Sulu State College may put him in a better position to perceive the degree of teaching and learning strategies deployed by professors at the college than his female counterpart, or vice versa.

Based on the findings, it can be inferred that the variable of gender plays a significant role in influencing the decision-making process of teachers at Sulu State College when it comes to implementing different teaching and learning strategies. Based on the available evidence, it can be concluded that the hypothesis stating "There is no significant difference on the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of gender" has been refuted. The data were segregated based on the gender of the students, which led to the observed outcome.

3.2 By Age

Table 3.2 Differences in the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of age

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Students Learning Strategies	Between Groups	.033	2	.017	.105	.901	Not Significant
	Within Groups	15.362	97	.158			
	Total	15.395	99				
Technology experience	Between Groups	1.000	2	.500	1.384	.255	Not Significant
	Within Groups	35.038	97	.361			
	Total	36.038	99				

*Significant alpha .05

Table 3.2 analyze the extent to which teachers at Sulu State College employ teaching and learning methods, as well as utilize technology in their instruction. The study also seeks to compare the level of learning strategies and technology experience employed by students at the college, with a focus on categorizing the data by age. At the predetermined level of significance, commonly referred to as alpha.05, the F-ratios and P-values pertaining to the various sub-categories encompassing the degree of teaching and learning techniques as well as technical experience employed by teachers at Sulu State College do not exhibit statistical significance. Based on the available data, it can be observed that the teacher-respondents, despite their varying ages, shared similar evaluations regarding the extent of teaching and learning methodologies as well as the level of technology experience employed by teachers at Sulu State College. The present study indicates that there is no significant correlation between age and the level of teaching and learning strategies and technology experience among teachers at Sulu State College. Specifically, being 41 years old or older does not necessarily confer a better perspective on these factors compared to teachers who are 30 years old or younger, as well as those who fall within the age range of 31-40 years. Similarly, the reverse is also true. It can be postulated that the reason for this phenomenon lies in the fact that teachers of advanced age tend to possess a greater wealth of experience in each of these domains.

Conversely, it can be argued that there is insufficient evidence to support the notion that age significantly mediates the relationship between teachers at Sulu State College and their evaluation of teaching and learning methodologies, as well as their experience with technology in the classroom. Given the observed outcomes, it can be inferred that the hypothesis asserting that there is no notable disparity in the teaching and learning strategies employed by teachers at Sulu State College, when considering students' learning strategies and technology experience, based on their demographic profile in terms of age, is supported and considered valid.

3.3 By Status of Appointment

Table 3.3 Differences in the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of status of appointment

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Students Learning Strategies	Between Groups	.140	2	.070	.446	.641	Not Significant
	Within Groups	15.255	97	.157			
	Total	15.395	99				
Technology experience	Between Groups	3.762	2	1.881	5.652*	.005	Significant
	Within Groups	32.277	97	.333			
	Total	36.038	99				

*Significant alpha .05

Table 3.3 a comparison is made between the degree of teaching and learning strategies and technology experience utilized by teachers at Sulu State College and the level of learning strategies and technology experience utilized by students when the data is categorized by demographic profile and appointment status. In contrast, the F-ratios and P-values of "Technology experience" are significant at the alpha level of 0.05, as demonstrated by this table. The F-ratios and P-values of "Teaching and learning strategies" are not significant. This suggests that, despite the fact that the ages of the teachers who responded to the survey are different, they generally have similar evaluations on the degree of teaching and learning approaches that are applied by teachers at Sulu State College. Having permanent status does not necessarily put a teacher in a better position to perceive the degree of teaching and learning techniques applied by teachers at Sulu State College. This research demonstrates that having temporary and job order status, or vice versa, does not necessarily put a teacher in a better position to perceive teachers' teaching and learning methodologies.

In spite these findings, it is justifiable to infer that the variable status of appointment does not exert a significant mediating influence on the manner in which professors at Sulu State College assess the extent to which they utilize teaching and learning strategies. Thus, based on the findings of this study, the hypothesis stating that "There is no significant difference on the level of teaching and learning strategies used by teachers in Sulu State College, when data are grouped according to students' demographic profile in terms of status of appointment" is accepted as true.

3.4 By Educational Attainment

Table 3.4 Differences in the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of educational attainment

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Students Learning Strategies	Between Groups	.400	4	.100	.634	.640	Not Significant
	Within Groups	14.995	95	.158			
	Total	15.395	99				
Technology experience	Between Groups	.104	4	.026	.069	.991	Not Significant
	Within Groups	35.934	95	.378			
	Total	36.038	99				

*Significant alpha .05

Table 3.4 examine and compare the utilization of teaching and learning methods as well as technology experience among teachers at Sulu State College in relation to the learning strategies and technology experience of students. The data will be classified based on educational attainment demographics to provide a comprehensive analysis of the observed contrasts. The findings of this study indicate that the F-ratios and P-values associated with the sub-categories of teaching and learning strategies implemented by teachers at Sulu State College do not reach statistical significance at the alpha level of 0.05. It is noteworthy that, although there may be variations in the educational background of the teachers surveyed, they tend to share similar evaluations regarding the extent to which teaching and learning methods are employed by teachers at Sulu State College. This observation suggests that possessing a doctorate degree may not confer a distinct advantage upon a teacher in terms of evaluating the efficacy of teaching and learning strategies employed by educators at Sulu State College, compared to individuals with a bachelor's degree, a bachelor's degree supplemented with master's level coursework, a master's degree, a master's degree supplemented with doctoral level coursework, or vice versa.

In spite of these findings, it is justifiable to infer that the variable of educational attainment does not exert a substantial mediating influence on the manner in which teacher-respondents assess the extent of teaching and learning practices employed by teachers at Sulu State College. Thus, based on the findings of this study, the hypothesis stating that "There is no significant difference in the level of teaching and learning strategies used by teachers in Sulu State College, when data are grouped according to students' demographic profile in terms of educational attainment" is supported and accepted as true.

3.5 By Years of Teaching Experience

Table 3.5 Differences in the level of the teaching and learning strategies used by teachers in Sulu State College in terms of students learning strategies and technology experience when data are grouped according to their demographic profile in terms of years of teaching experience

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Students Learning Strategies	Between Groups	.789	3	.263	1.730	.166	Not Significant
	Within Groups	14.606	96	.152			
	Total	15.395	99				

Technology experience	Between Groups	1.860	3	.620	1.742	.164	Not Significant
	Within Groups	34.178	96	.356			
	Total	36.038	99				

*Significant alpha .05

Table 3.5 A comparative analysis is conducted to examine the utilization of teaching and learning strategies as well as technology experience among teachers at Sulu State College. The study also investigates the level of learning strategies and technology experience among students, with a focus on categorizing the data based on demographic profiles and years of teaching experience. Based on the data provided in the table, it can be observed that the F-ratios and P-values associated with the sub-categories of teaching and learning strategies employed by instructors at Sulu State College do not exhibit statistical significance at the specified hypothesis level of alpha.05. It is evident from the data that the teacher-respondents possess varying years of teaching experience. However, their evaluations regarding the degree to which teaching and learning strategies are implemented by Sulu State College teachers remain relatively consistent. The findings of this study indicate that there may not be a significant difference in the level of teaching and learning strategies utilized by teachers at Sulu State College based on their years of service. Specifically, teachers with 16 years or more of experience may not necessarily have an advantage over teachers with 5 years or less, 6-10 years, and 11-15 years of teaching experience, or vice versa. The variation in teaching and learning strategies employed by teachers at Sulu State College may account for this phenomenon.

Conversely, it is justifiable to infer that the quantity of years of instructional experience possessed by instructors does not yield a noteworthy influence on their perception of the efficacy of teaching and learning methodologies employed by teachers at Sulu State College, as indicated by the survey respondents. The conclusion reached is that there is no statistically significant difference in the level of teaching and learning strategies employed by teachers at Sulu State College when considering students' learning strategies, grouped according to their demographic profile based on years of teaching experience.

4. Is there a significant correlation among subcategories subsumed under teaching and learning strategies of teachers in Sulu State College?

Table 4. Correlation among the sub-categories subsumed under the impact of formative assessment in improving writing skills in English as a second language among public Senior High Schools in Sulu

Variables					
Dependent	Independent	Person *r*	Sig	N	Description
Level of learning strategies	Technology experience	.533**	.000	100	High

*Correlation Coefficient is significant at alpha .05

Correlation Coefficient Scales Adopted from Hopkins, Will (2002):

0.0-0.1=Nearly Zero; 0.1-0.30=Low; .3-0.5 0=Moderate; .5-0.7-0=High; .7-0.9= Very High; 0.9-1=Nearly Perfect

Table 4 depicts the relationship between subcategories within the degree of teaching and learning strategies of teachers at Sulu State College. This table shows that the estimated Pearson Correlation Coefficients (Pearson r) between these variables are significant at alpha =.05.

Specifically, the degrees of correlation among the sub-categories contained under the level of teaching and learning strategies of teachers at Sulu State College are as follows:

1) Sulu State College faculty demonstrate a strong positive link between their usage of learning methodologies and technology experience.

These findings suggest that the teacher-respondents who rated the amount of learning strategies utilized by teachers at Sulu State College as Often are most likely the same group of teachers who rated their technological experience as Agree.

Meanwhile, it is safe to assume that lecturers at Sulu State College use a wide range of learning methodologies and have extensive experience with technology.

Thus, the hypothesis that "There is no significant correlation among subcategories subsumed under teaching and learning strategies of teachers in Sulu State College" is rejected.

Conclusion

The following are the conclusions drawn from the findings of this study:

i. Gender, age, appointment position, educational level, and years of teaching experience are all properly represented among college faculty members participating in this study.

ii. Teachers at Sulu State College have a high level of teaching and learning methodologies, as well as technology experience.

iii. the exception of gender, variables such as age, appointment status, educational attainment, and years of teaching experience do not significantly mediate how teachers at Sulu State College assessed their level of teaching and learning strategies in terms of student learning strategies and technology experience.

iv. In general, teacher-respondents who rated the amount of learning strategies utilized by teachers at Sulu State College as Often are likely to be the same group of teachers who rated their technological experience as Agree.

v. This study seems to support Theories of Teaching by Orlich, D. Et al. (2012) which espouses on the reflection and interaction with the views of the teachers and the reactions of the students in the process of learning

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